

here detail, in the first place, and then notice my own experiments made some time afterwards.

1. M. Magendie laid bare the facial nerve of a dog near its origin and pricked it; at each prick a demonstration of pain was given. The nerve was then cut across, not far from its junction with the fifth pair. Pricking and pinching the cerebral end of the divided nerve produced no indication of sensibility; but pinching the other end obviously caused pain. It appears from this experiment that the sensibility of the facial nerve, as well after as before its union with the fifth pair, depends on this last, and not from any other anastomosis or the influence of the brain sent direct through its origin. M. Magendie then laid bare the roots of the lumbar nerves of a dog. The posterior roots were found as usual very sensible; the anterior were less so, still the dog whined and gave evident signs of pain each time they were pinched. M. M. then divided the motor root; pinching the spinal extremity of this produced no pain, but pinching the other (before its union with the sensitive root) caused the dog to cry out.

2. Some weeks after this I performed the following experiments on rabbits: The facial nerve before its union with the fifth was found sensible, at one time more so, at another less; on dividing it before its union, pinching its under (peripheral) end produced pain, yet not always. I then laid bare the lumbar portion of the spinal marrow, and found the motor roots sensible, but much less so than the sensitive. The following experiments, however, prove that the sensibility of the motor roots is not derived through fibres coming directly from the spinal marrow, but is dependent on the other (the sensitive) roots. When I stimulated the motor root, the sensitive root being undivided, pain was evinced, but when the latter was divided the same stimulus produced no sensation. Magendie's experiment equally proved this, and its repetition by myself confirmed the same. After division of the anterior root, the posterior being untouched, the under or peripheral end was always sensible, the upper not. The case is similar with the anterior column of the spinal marrow—pain being only produced when the posterior roots were uninjured.

In order to settle this point still more firmly, and to ascertain the course of the fibres, I made the following experiment; I made in the angle of union of the two roots a small incision, about half a line in extent, leaving both the roots untouched: it was then found that the same phenomena no longer took place; thus, the anterior root and the anterior column of the spinal marrow were now insensible, and on the division of the root both its ends were equally insensible.

This simple and easy experiment proves, first, that a portion of the fibres of the sensitive root extends to the point of union and is reflected back to the anterior column of the spinal marrow; and, secondly, that the return or reflection of the fibres takes place near the point of junction of the two roots.

[These experiments afford a satisfactory explanation of phenomena which have been very perplexing to physiologists. It has been almost constantly observed that some degree of sensibility appeared to exist in what Sir C. Bell regarded as exclusively the *motor* roots of the nerves; this sensibility being manifested by expressions of pain on the part of the animal when they were irritated. The sensibility of the *portio dura* has long been known, and was correctly attributed by Sir C. Bell to its reception of filaments from the fifth pair. A similar mixture of the filaments of the posterior roots of the spinal nerves with those of the anterior—these filaments passing *towards* the centre as well as *from* it—may be reasonably anticipated; and this supposition fully explains all the phenomena which have led Magendie and others to the opinion that the anterior roots are sensible. The supposed motor properties of the posterior roots are fully accounted for by Dr. Hall's discoveries; since irritation of these will produce reflex actions through the motor nerves distributed to the same parts.] *Brit. and For. Med. Rev.*, April, 1840, from *Müller's Archiv*. Heft v. 1839.

10. *Case of a woman pregnant with five children*—DOCTOR EVERY KENNEDY produced five fœtuses, with their involucre, the product of a single abortion, at the

meeting of the Dublin Pathological Society, held on the 14th instant. The patient had been attended by his late assistant, Doctor Thwaites, and pupils of the hospital, and the facts of her case were accurately noted, so that deception was impossible. The specimen produced, Dr. Kennedy stated to be the multiparient conception of a female, who aborted when, as she stated, she was three months gone with child. The case was one in which there appeared to be three distinct ova; two of these were twins, the third was single, so that five fœtuses co-existed in utero. On examining the preparation, Dr. Kennedy remarked, that, closely viewed, it would be found that those on each side differed from the centre one. Each of the former possessed a common placenta, and membranes common to both, with an intervening septum; but the central one is distinct and perfect in itself, having its own placenta and membranes. Some persons have been disposed to question the occurrence of these multiparous births; and indeed it must be acknowledged that the popular opinions, and even recorded cases, on the subject, are sufficiently extravagant; as for instance, the Countess of Hanneberg's case, in which it was stated that 365 children were produced at a birth. But without taxing our credulity in these cases too far, we have undoubtedly a few well-authenticated instances on record, in which women have given birth to five children at a time. One of these, that of Guiseppa Califani, occurred lately at Naples; and we have the details of another, which took place in Franklin county, in America, about twelve years ago, recorded by Doctor Paddock. There is also said to be a similar preparation in the British Museum. It is extremely curious and interesting, as connected with the history of multiparous births, that in this respect Ireland preponderates over all other nations, and that the Irish females are unequalled in the ratio of their fecundity. The proportion of twin cases in Dublin, is one in sixty; in America (where, it is to be recollected, there is a large number of Irish emigrants) the proportion is one in seventy-five; in London it is one in ninety-one; while in France, "*longo intervallo*," it is one in 140. In proof of the rarity of five twin-children, Doctor Kennedy further remarked, that out of 140,000 cases recorded in the Lying-in-Hospital of Dublin, there is no instance of five children at a birth. There is one case of four, but none of five. It is a curious fact, that in the American case the mother was an Irish woman, and had recently arrived in America. It may, perhaps, be considered equally curious that in the case detailed by Doctor Kennedy the father was a man of small stature, ætat. about thirty, without any remarkable personal development, and by trade a *tailor*. The woman, the subject of the present memoir, whose name is Sarah Hickey, is twenty-eight years of age. She was married about two years ago, and within nine months after brought forth her first child. This conception was uniparient. After the lapse of six months she again conceived of the fœtuses alluded to; and observed that during the pregnancy she increased very rapidly in size, and suffered constantly from bearing down, which rendered walking or standing almost impossible. She had constant sickness of stomach—a symptom generally looked on as an evidence of compound pregnancy. As to the abortion, it would appear to have been produced by inordinate distension of the uterus for its period, which in its turn, led to parturient efforts, as the ova presented no morbid appearance. The fœtuses, which are all males, do not appear to exceed the development usually observed about the second month; and as Hickey menstruated on the 24th of May, and miscarried on the 26th of August, it is more than probable she over calculated the duration of her pregnancy. This preparation is in Dr. Kennedy's museum, in the Dublin Lying-in-Hospital.—*Dublin Journal Med. Sc.* Jan. 1840.

#### PATHOLOGICAL ANATOMY AND GENERAL PATHOLOGY.

11. *Remarkable Case of Ischuria Renalis, of Nine years' Standing, with Vicarious Vomiting of Urine.* By F. L. KREYSIG, M. D., of Dresden.—S. B. ætat. 25, six years after the commencement of menstruation, began to complain of